No concept is an island: conceptualising (in) the industrial network approach

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Abstract

Purpose – The purpose of this paper is to inquire into how conceptualising is done in the industrial network approach (INA).

Design/methodology/approach – The description and analysis of conceptualising is based on key INA references and an example illustrating the characteristics of conceptualising in individual studies.

Findings – The paper concludes that there is an open and interactive way of conceptualising in the INA. The empirical and theoretical grounding achieved through combining concepts in individual empirical studies interplays with conceptual development in the research community over time.

Research limitations/implications – Three paradoxes are suggested for further discussion of conceptualising as a key element in theorising in the INA community.

Originality/value – By explicating how INA researchers engage in conceptualising both in individual empirical studies and as a community, the authors identify characteristics similar to the empirical phenomena in focus of the research: interaction, combining and heterogeneity of concepts.

Keywords Industrial network approach (INA), IMP, Concept, Conceptualising, Business network, Interaction, Context

Paper type Conceptual paper

Introduction

Researchers engaged in the industrial network approach (INA) are working with an abundance of theoretical concepts that contribute to describe and analyse interaction and networking aspects of business and technological development in a variety of empirical settings (Håkansson and Snehota, 1995; Håkansson *et al.*, 2009; Håkansson and Snehota, 2017; Håkansson and Gadde, 2018). In broad terms, the INA research community (often referred to as the Industrial Marketing and Purchasing[IMP] group) uses and develops concepts to describe and explain a complex reality featuring interrelated phenomena such as interaction, interdependence, embeddedness, connectedness, business relationships and networks.

Considering research as embedded in a research community, the researchers engaged in the INA share a common understanding of the INA's basic theoretical assumptions and conceptual frameworks. However, there is no consensus in the sense of "once and for all" definitions even of key concepts such as interaction (Prenkert *et al.*, 2019; Bocconcelli *et al.*, 2020). Instead, both opportunities and challenges seem present in the conceptualising: "Researchers seeking new understandings of interaction in an industrial business context, which is observed inside an existing real-life network setting, are dealing with a concept that is elusive" (Andersen *et al.*, 2020, p. 629).

Bibliometric analyses of the concepts used by "the IMP group" have found homogeneity and constancy of key concepts (Wuehrer and Smejkal, 2013), and that "relationship" has remained as the most frequent concept during the periods studied. As the interest in relationships, or business relationships, can be seen as defining the whole research area, this is not very surprising. What seems to be more interesting to explore is the variety in how the concept has been used and combined with other concepts, and how these efforts have broadened and deepened the understanding of the dynamics in

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industrial networks. In this paper, we look further into these processes of conceptualising as a key element of theorising in the INA. We have chosen not to use the term IMP as it places an emphasis on the community (and the conference), and instead use INA to describe the area in which the conceptualising of interest takes place.

Over the years, there have been debates on the paradigmatic status of the INA. For instance, Harrison (2004) considered the decline of the community, and Cunningham (2008) voiced anxiety of increasing uniformity, repetition and stereotyping. In addition, two recent papers highlight the importance of not getting stuck by too strong coherence and conceptual agreement as a research community. Firstly, Ojansivu *et al.* (2022) argue that research communities over time need to adjust their "lenses", take in new viewpoints and develop different understandings. As finding socially relevant and interesting research questions is a key concern for a research community, the authors identify a contradiction:

> [. . .] while a lens becomes more interesting, relevant and able to draw in more researchers, it turns the research community increasingly rigid, harder to access, and easier to criticize, attack and stain politically [. . .] (Ojansivu *et al.*, 2022, p. 57).

Secondly, Möller and Halinen (2022) discuss IMP more explicitly, comparing it with the North American mainstream tradition to business marketing research:

> Researchers use and create generic constructs (actors, resources, network pictures, and network change) to make sense of the core phenomena, i.e., network structures and processes and firm behavior in networks. These core constructs are applied in various business contexts—generally via case research—to create descriptions of subjectively perceived complex realities. Sticking to the IMP conceptual tools is a prominent feature of this endeavor." (Möller and Halinen, 2022, p. 289).

In contrast, two other recent publications, Bocconcelli *et al.* (2020) and Prenkert *et al.* (2019) suggest that the conceptualising of resource interaction and related concepts in the INA would benefit from more agreement and coherence. Bocconcelli *et al.* (2020, p. 393) argue that:

> [. . .] [i]n terms of conceptual refinement, the open language system and extensive empirical research within Resource Interaction encompasses a wide range of concepts. This can result in issues regarding the clarity of conceptual definitions, and the relatedness and coherence between concepts, which makes 'going the last analytical mile' somewhat problematic.

Prenkert *et al.* (2019) argue along the same lines, warning that theorising on resource interaction and resource interfaces may be hampered by fragmentation and conceptual imprecision, which in turn may hinder scholars to systematically build on each other's works.

Taking these opposing views on whether there is sufficient coherence in the way in which concepts are applied in the INA or not as a starting point, the aim of the paper is to inquire into how conceptualising is done in the INA.

In the next section, we present a framework wherein we identify concepts that describe different aspects of conceptualising. In the third section, we turn to the INA and look at examples of how concepts have been developed and used in different ways and over time. Next, we discuss conceptualising in the INA based on the notions presented in the framework and identify three paradoxes. The last section contains a concluding discussion and suggestions that may inspire further elaboration.

Conceptualising: a framework

Conceptualising, defined as "forming a concept or idea of (something)" (Oxford Dictionary, 2021), is an important part of research (Laurence and Margolis, 1999). Conceptualising is about interpreting something conceptually and is a means to develop mental representations of a phenomenon or issue (Margolis and Laurence, 2007). Such mental representations are used as vehicles for understanding, explaining and systematising, and is thus a natural part in many, if not most, studies. Conceptualising can be seen as a process wherein meaning is given to theoretical concepts as part of an evolving framework for analysis of an empirical phenomenon (cf. Dubois and Gadde, 2002). Conceptualising thus plays a role at the outset of a study when concepts developed by others are integrated in the initial framework but can also be considered a vital outcome of a study as new, refined or redefined concepts may be suggested. Conceptualising is thus also an important part of collective and interactive efforts to formulate and relate theoretical concepts in the development of theory at a research community level. According to Bacharach (1989, p. 496), a theory is:

> [. . .] a statement of relations among concepts within a boundary set of assumptions and constraints. It is no more than a linguistic device used to organize a complex empirical world. [. . .] the purpose of a theoretical statement is twofold: to organize (parsimoniously) and to communicate (clearly).

Suddaby (2010) emphasises that constructs (or: concepts, as a term preferred by constructivists) only exist in referential relationships with other constructs and with the phenomena they are designed to represent:

> [. . .] new constructs are rarely created de novo. Rather, they are usually the result of creative building upon preexisting constructs, which themselves refer to other extant constructs, in an ongoing web of referential relationships. Constructs, thus, are the outcome of a semantic network of conceptual connections to other prior constructs (Suddaby, 2010, p. 350).

According to Suddaby (2010, p. 353), clearly defined concepts serve a "creative heuristic purpose" in the elaboration of theory:

> Like metaphors, a well-crafted construct can capture the essential elements or characteristics of a phenomenon and, simultaneously, highlight both its similarities to and differences from related phenomena. Constructs are carefully articulated abstractions that, if effectively crafted, expand the range of phenomena and relationships they capture.

Suddaby argues that there are three justifications for clear and concise concepts: to facilitate communication between scholars, to enhance the researchers' ability to empirically explore phenomena, and to allow for greater creativity and innovation in research. However, considering the need for clear and concise concepts, Laurence and Margolis (1999) point to "the problem of fuzziness", i.e. that many concepts appear to be "fuzzy" or inexact. According to Laurence and Margolis, the search for defining features by procedures for unambiguously determining "category membership" may be difficult. Consequently, to Laurence and Margolis (1999, p. 27) conceptual fuzziness implies that "concepts and categorization both admit of a certain amount of indeterminacy". That is, there are always challenges involved in developing exact definitions of concepts.

Laurence and Margolis (1999) point to several differences among theories of concepts. Here, we will address three of these notions since they seem to be of particular interest when addressing conceptualising in the INA. Firstly, Laurence and Margolis (1999, p. 4) point to the difference between primitive and complex concepts. Primitive concepts are ones that lack

structure, while complex concepts are concepts that are not primitive:

> Indefinitely many complex concepts lack prototype structure. Some fail to have prototype structure because people simply don't have views about the central tendencies of the corresponding categories. This seems to be the case with many uninstantiated concepts. (Laurence and Margolis, 1999, p. 36).

As one of several reasons, Laurence and Margolis note that such concepts may "lack prototype structure because their extensions are too heterogeneous" (Laurence and Margolis, 1999, p. 36).

According to Suddaby (2010), effective concepts create broad categories and should not be reducible to narrow empirical observations. The challenge is thus to create concepts that are sufficiently narrow to "strip away unintended connotations and surplus meaning but are conceptually broad enough to capture the underlying essence of the phenomenon" (Suddaby, 2010, p. 348). Another issue following from the heterogeneity of concepts regards the methodological implications. According to Siggelkow (2007, p. 22):

> [. . .] getting closer to constructs and being able to illustrate causal relationships more directly are among the key advantages of case research vis-à-vis large-sample empirical work. In large-sample work, the distance between conceptual constructs and measurable variables is often rather large.

Second, Laurence and Margolis (1999) point at the difference between objective and subjective concepts; "[. . .] while mental representations are subjective [. . .] this doesn't stop them from being objective in the sense of being shareable" (Laurence and Margolis, 1999, pp. 7-8). According to Suddaby (2010, pp. 347-348):

> [. . .] meanings are notoriously difficult to specify, for a variety of reasons. One reason is that the meanings of words are never fixed or permanent. When different researchers apply an existing construct to a new empirical context, they often change the meaning of the term, however slightly. Over time and over multiple empirical applications, the definition of a construct tends to drift [. . .].

Hence, acknowledging the interactive use and development of concepts at the research community level and over time seems vital when addressing joint efforts to develop theory. However, herein lays a paradox referred to as the "paradox of conceptualisation" described by Kaplan (1964, p. 53) as "The proper concepts are needed to formulate a good theory, but we need a good theory to arrive at the proper concepts". We will return to this paradox.

The third point regards types of conceptual models (Laurence and Margolis, 1999). Generally, conceptual models relate individual concepts to one another. According to Cabrera *et al.* (2008: p. 303): "Any given concept is a function of its inter-relationships and organization with other concepts in the conceptual space."

Laurence and Margolis (1999) point to the difference between two types of models of conceptual structure, containment models and inferential models. Containment models refer to models wherein a concept is:

> [. . .] a structured complex of other concepts just in case it literally has those other concepts as proper parts [. . .] an occurrence of C would necessarily involve an occurrence of X, Y, and Z; because X, Y, and Z are contained within C, C couldn't be tokened without X, Y, and Z being tokened (Laurence and Margolis, 1999, p. 5).

In contrast, inferential models regard a concept as:

> [. . .] a structured complex of other concepts just in case it stands in a privileged relation to these other concepts, generally, by way of some type of inferential disposition. On this model, even though X, Y, and Z may be part of the structure of C, C can still occur without necessitating their occurrence (Laurence and Margolis, 1999, p. 5).

Next, we will inquire into how conceptualising is done in the INA by focusing on two important aspects of conceptualising: development of concepts and conceptual models in the research community over time, and conceptualising in individual studies.

Conceptualising in the industrial network approach

INA studies carried out close to empirical phenomena contribute to the broader research community by using and developing concepts in different empirical contexts (Dubois and Araujo, 2004). Consequently, the empirical grounding is combined with theoretical grounding through frameworks, i.e. by combinations of concepts that are refined during the process of individual studies (Dubois and Gadde, 2002; 2014). Hence, conceptualising is an integrated part of the casing process (Ragin, 1992) and plays a vital part in exploring the interactive business world (Waluszewski *et al.*, 2019). Håkansson and Gadde (2018, p. 30) argue that:

> IMP has been instrumental in building up an impressive empirical base about business relationships in different contexts and with various functions or roles. This empirical base is far from complete – there are always new contexts to investigate. But the base is already so extensive that it demands further theoretical conceptualisation and model development in order to explain the features and dynamics of the business landscape in more comprehensive ways.

In this section, we inquire into conceptualising in the INA by looking at some notions and examples. Below, we focus on two broad aspects of conceptualising in INA studies: Firstly, how concepts are developed over time, and secondly, how concepts are combined in frameworks developed in individual studies.

Conceptualising industrial network approach concepts over time

Since the start, a range of research streams such as resource-dependence theory (e.g. Pfeffer and Salancik, 1978), and social exchange theory (e.g. Cook and Emerson, 1978) have inspired theorising and conceptualising in the INA in different ways. As a result, concepts such as embeddedness (Granovetter, 1985), interdependence (Thompson, 1967; Richardson, 1972) and many others have become part of the INA. More detailed descriptions of such "theoretical roots" are presented in Wilkinson (2001) and Håkansson *et al.* (2009). Considering such conceptual "borrowing" from other research streams as belonging to history suggests that relating across research communities have stopped. In contrast, concepts developed in other research streams continue to contribute to conceptualising in the INA by enabling analysis of different approaches and uses of concepts for comparison of similarities and differences (e.g. Bocconcelli *et al.*, 2020; Vedel *et al.*, 2016, La Rocca *et al.*, 2015; Baraldi *et al.*, 2012), or to build upon and/or cross-fertilise concepts (e.g. dos Santos *et al.*, 2020; Koporcic and Törnroos, 2019; Bondeli *et al.*, 2018; Vedel *et al.*, 2016). Conceptualising within the INA research community thus seems to be featured by interacting with other theoretical approaches.

An example of how conceptualising may evolve over time can be found in two papers by Gadde (2016; 2021). Gadde examines shifts of perspectives on the organisation and management of distribution, starting with early distribution literature, followed by channel management and finally, today's network

perspective. The examination shows that conceptualisations of the business reality take place in a dynamic interplay with features of the business reality and managerial recommendations (derived from the conceptualisations) that affect the perspective on a certain phenomenon. Concepts and models are thus adjusted to various conditions and situations. The concept of power is used as an example. Power was not a major focus in the early literature on distribution, but "in channel management, power was applied mainly as a coercive tool. In network coordination, power is used as a mechanism to coordinate the effects of business partners to join forces." (Gadde, 2021, p. 49). Thus, established conceptualisations are affected by the perspective applied which implies that the meaning of concepts may change over time. Hence, the very same concept, such as power, can be given new meanings. Consequently, Gadde (2021, p. 49) argues that:

> New constructs are needed to demonstrate the impact of new conditions, [. . .] Some of the previous concepts are likely to become obsolete [. . .], other concepts may require re-interpretation to be useful, as shown in this study regarding power.

In contrast to power, one of the core concepts in the INA is interaction. In the earlier INA literature, interaction within relationships between two parties (in dyads) was addressed:

> Concepts describing the interaction between companies, the parties involved, and the environment are developed and related to each other. A research model – called the `Interaction Model' – is formulated in this way. (Håkansson, 1982, p. 8).

The model was an outcome of empirically observed interaction between buying and selling firms, resulting in conceptualisation of relationships in this new field of research. Accordingly, "the interaction approach" built on descriptions of long-term and close relationships with complex interaction patterns, in contrast to discrete single purchases (or transactions) between business partners, thus challenging "the view that implies an atomistic structure in industrial markets" (Håkansson, 1982, p. 1). The ARA (Activities-Resources-Actors) model (Håkansson and Johanson, 1992) became an important outcome developed through scrutiny of how relationships are connected and the different contexts of related activities, resources and actors as three "layers" in interaction processes and contributed to developing and conceptualising "a network approach" (Håkansson and Snehota, 1995).

Later, interaction was defined as "an important economic process through which all of the aspects of business, including physical, financial and human resources, take their form, are changed and are transformed" (Håkansson *et al.*, 2009, p. 33). The definition contains aspects that have always been central to the industrial network approach, but with an emphasis on the role of interaction in creating value due to resource heterogeneity (Penrose, 1959). Reflecting the growing interest in resources, "the resource interaction approach" was first presented in Wedin (2001) and Håkansson and Waluszewski (2002) considering four types of interacting resources: business units, business relationships, production facilities and products.

During the past two decades, this approach to resource interaction has attracted a lot of attention which is discussed in three recent publications (Baraldi *et al.*, 2012; Prenkert *et al.*, 2019; Bocconcelli *et al.*, 2020).

The foundations, conceptual development and implications of resource interaction in inter-organisational networks have been contrasted with other research streams: the "Resource-Based view" (RBV) and the "Service-Dominant Logic" (SDL) to "better position this perspective (the resource interaction approach) on inter-organizational resource interaction" (Baraldi *et al.*, 2012, p. 266). This briefly described development mirrors a progression driven by continuous efforts of understanding, explaining and systematising interaction processes, in relation to what Waluszewski *et al.* (2019) describe as the unfolding interactive business world. Hence, over the years, the empirical and analytical focus has changed, and accordingly, the way in which interaction has become related to other concepts has evolved.

Interaction is thus one of the concepts that have remained key, and become subject to development, over time. According to Cova *et al.* (2015, p. 82):

> [. . .] the concepts of both "interaction" and "networks"/connectedness are well suited for the observation of the business landscape, thus giving birth to a sort of grand re-integrative theory of business exchanges. The plasticity of the IMP frameworks enables them to be used across different empirical settings and, through its further investigation, allows research journeys to be progressively refined as a result.

Hence, combining or relating concepts with other concepts, as well as expanding their meaning by finding new "uses" for them, have featured conceptualising process(es) over time. In a similar way, Bäckstrand and Halldorsson (2022) emphasise conceptual borrowing and transferability when discussing theorising in the area of purchasing and supply management wherein the INA is one of several theoretical approaches.

Conceptualising in individual studies

Combinations of concepts are refined during the process to form an analytical framework in individual studies (Dubois and Gadde, 2002; 2014). A recent study of market dialogues in public procurement (Holma *et al.*, 2022) serves as an example of conceptualising in individual studies. Conceptualising is explicitly stated as the purpose of the study: "The aim is to conceptualize buyer-supplier interfaces during market dialogue in the pre-tender phase of public procurement and explain the connection between capabilities and interfaces (Holma *et al.*, 2022, p. 52). Several aspects in relation to how the conceptualising was made are highlighted in the paper. The study builds on a multiple case study and explores the interaction between a public buyer and some potential suppliers. The paper builds on the interface concept and the typology developed by Araujo *et al.* (1999, p. 497): "[. . .] a categorization of four different interfaces based on how a focal customer can access its suppliers' resources".

The typology distinguishing between four type of interfaces: standardised, specified, translation, and interactive, has been applied in several previous studies, exploring various phenomena in different empirical contexts.

For example, change of interfaces over time in the design construct contracts (Boes and Holmen, 2003); different phases of customer-supplier interaction in public procurement (Torvatn and de Boer, 2017); organisational interfaces in process innovation at LEGO Systems (Andersen and Gadde, 2019); technological development projects with interfaces that are "pure" or "mixed" (a combination of several interfaces) in the truck manufacturing industry (Lind and Melander, 2019); the interplay of interfaces at the firm, unit and functional levels

involving multiple actors in product development (Sundquist and Melander, 2020); outsourcing of an IT system in the public sector (Håkansson and Axelsson, 2020); and the role of public actors in construction logistics including effects on and of relational interfaces (Eriksson *et al.*, 2021).

In Holma *et al.* (2022), the use of the typology and contributions from these previous studies in the conceptualising process is twofold: Firstly, making use of interface as a key concept (including the four interface types) to analyse market dialogues in public procurement and second, to motivate the study:

> Previous studies have suggested that public procurement promotes transactional and standardized interfaces between public buyers and suppliers. The use of more interactive and translational interfaces in market dialogues during the pre-tender phase of public procurement has received limited academic interest. (Holma *et al.*, 2022, p. 51).

In Holma *et al.* (2022), the interface concept forms the conceptual background in combination with the capability concept, stemming from an extensive amount of literature defining different types of capabilities for managing customer—supplier interaction (see e.g. a review by Forkmann *et al.*, 2018). The capability concept is widely used in many research fields (e.g. the resource-based view, dynamic capability theory and relational capability theory), in which aspects of capabilities are interpreted differently based on various definitions of the concept (Forkmann *et al.*, 2018). The analytical framework relates "market dialogue interactions" to "buyer-supplier interfaces" and public buyer/supplier "relational abilities" in terms of "capabilites to interact", and is mirrored in the two research questions: (1) *How can the interfaces between the public buyer and the suppliers during market dialogue interactions be characterized?* (2) *Which capabilities are important for the development of mutually beneficial market dialogue interactions?* (Holma *et al.*, 2022, p. 52).

The contributions of the study (Holma *et al.*, 2022, p. 52) are described as follows:

> Thereby, we contribute to the literature on public procurement and supplier management. First, we enrich the interface framework by showing that interaction can be achieved in market dialogues and highlighting that the dialogues do not necessarily feature only one interface but may contain a configuration of interfaces varying by interface type and sequencing. Second, we elaborate on the subdimensions of the public buyer's and the suppliers' relational abilities, which influence the buyer-supplier interfaces obtained through the market dialogue. We offer implications for organizing market dialogues in public procurement.

Hence, the study contributes by giving meaning to "market dialogue interactions" as a concept useful in the context of public procurement, to enrich the interface concept by analysing sets of interfaces in this empirical context, and by combining it with relational abilities as capabilities of buying and supplying organisations. All in all, the example by Holma *et al.* (2022) illustrates how the conceptualising was made when explaining: the motivation for the conceptualising, the "starting point" of key theoretical concepts and the empirical phenomenon, the relatedness between theoretical concepts, relatedness between theoretical concepts and the empirical phenomenon and finally, contributions (outcomes) of the conceptualising.

Discussion

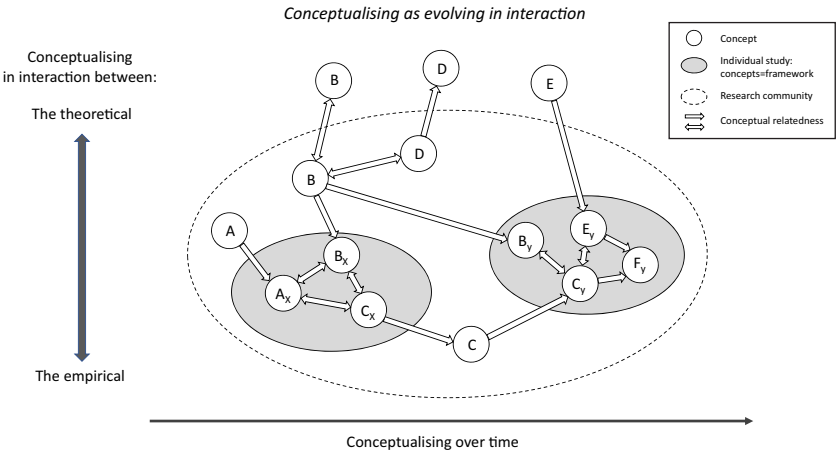
Conceptualising in the INA seems to be subject to variety and interaction, and to be both theoretically and empirically context dependent. Concepts can be seen as interacting with empirical observations wherein researchers interpret and make choices regarding what combination of concepts (and definitions) to use when describing and analysing what is observed. Considering that concepts are also interacting with other concepts, within the INA as well as in other research streams, turns the focus on how conceptualising is a matter of the research context: the aim of the individual study, the set of concepts that are perceived as available or useful, as well as the interaction with the empirical setting. Hence, conceptual frameworks are unique to every study even if the chosen concepts have a history of prior use and development. Some of these concepts may be defined and used as suggested by other researchers while others become developed during, or as a result of, a study. Hence, concepts are given certain meaning in an interactive conceptualising process that takes place in every study.

If this is a proper description of conceptualising in the INA, concepts are not static but are given partly new meaning when combined with other concepts and applied in new contexts. Another way of putting this is that the meaning of a concept is imposed on the concept as a result from interaction with empirical settings and/or with other concepts and/or theories. That is: No concept is an island (Suddaby, 2010, p. 350, addressing "constructs"). Just as INA studies focus on interactive phenomena in the business landscape there seem to be interactive aspects in conceptualising. Some of these aspects relate to the empirical domain that INA scholars seek to describe and analyse while others have to do with relating concepts to one another in more or less novel ways (Figure 1). Moreover, considering these interactive aspects at the research community level, the concepts developed in other studies influence how we choose to frame our studies including what concepts to begin with, and which ones to search for (or stumble across). The nature of concepts is indeed an interesting aspect of conceptualising in the INA especially regarding how far the meaning of a particular concept can be extended. In relation to theory development at the community level a paradox can be articulated: Conceptual relatedness can both restrain and inspire new conceptual meaning.

Subjectivity can be related both to the researcher's perception of the meaning of a concept, as well as to the subject of research wherein inter-subjectivity can be considered inherent in the interaction between actors (e.g. Halinen *et al.*, 2012), and thus of particular importance to the INA. The extent to which concepts are shared can be considered as a consequence of subjectivity and the preferences of other researchers. Some concepts become subject to extensive sharing while others do not. Considering concepts as subject to heterogeneity a second paradox can be identified: The more a concept is used or shared, the more it becomes related to other concepts and meanings. That would be contrary to ambitions of achieving "maturity" in terms of agreeing "once and for all" on joint definitions resulting from collective conceptualising efforts. To INA researchers, the parallel between this paradox and how the value of resources depends on how they are combined, and on their context(s), seems relevant.

The two types of models described by Laurence and Margolis (1999), i.e. inferential and containment models, are interesting to consider in relation to for instance the Activity-

Figure 1 Conceptualising as a process involving concepts combined and developed in different studies over time



Source: Authors' own work

Resource-Actor (ARA) Model and the development of notions regarding its conceptual components such as resources, and other key concepts such as interaction and business relationships. The generic conceptual models such as the ARA Model and the Resource Interaction Model seem to be featured as inferential models as the individual concepts in these models are used and combined with other concepts to make sense of general empirical phenomena. In contrast, the frameworks developed in individual studies seem to be featured as containment models. For instance, drawing on Miles and Huberman (1994) and Dubois and Gadde (2002) argue that theoretical frameworks should be tight, or "contained", and evolving during a study.

Perhaps, the INA could be described as working with conceptual models featured by an open conceptual structure (cf. Bocconcelli *et al.*, 2020; referring to an open language system). The notion of an interactive and open conceptual model points to a simultaneous need of coherence while remaining open for new influences on the meaning of concepts. In a bibliometric study of the evolution and structure of business model research in industrial marketing, Coombes (2022) scrutinises how the business model concept has been combined with other concepts and used in different contexts. The argument relates to Jensen's (2013, p. 61) suggestion regarding the business model concept:

> Different and complementary business model perspectives may provide a better understanding and reflection of reality than a single, general and detailed definition. For specific applications, definitions need to explicitly clarify the particular role, nature and boundaries of the business model.

Hence, conceptual clarity follows from determining how concepts are defined and related to one another, while there are always opportunities in relating concepts in new ways, and thus giving them new meanings. Herein a third paradox can be identified: The more agreement on how to define and use a concept, i.e. conceptual clarity, the more difficult it becomes to advance the meaning of the concept.

What does these features of conceptualising mean in terms of the types of concepts and models described by Laurence and Margolis (1999)? Conceptualising in terms of the frameworks developed in individual studies relate to the features of containment models built on combinations of subjective concepts. Containment relates to the "tight" combination of concepts evolving during a study (Dubois and Gadde, 2002). The subjective aspect of concepts in conceptual frameworks draw on the relatedness of business relationships in networks which are unique and subjectively understood (Ford and Håkansson, 2006). In contrast, the more generic conceptual models developed for analysis of interaction, relationships and networks (Håkansson, 1982; Håkansson, 1989; Håkansson and Snehota, 1995) seem to be featured as inferential models built on objective concepts. The latter referring to the sharing of concepts across empirical contexts. Moreover, while all INA concepts seem to be complex rather than simple, their complexity seem directed to specific empirical contexts in frameworks developed as part of individual studies, and to the theoretical domain in generic models. Hence, the interplay between generic and specific combinations of concepts seems vital to theorising in the INA.

Concluding discussion

In this paper, we have elaborated on conceptualising as a process and how it is applied in the INA. Conceptualising in the INA appears to have characteristics similar to the empirical phenomena in focus of research: interaction, combining and heterogeneity. Interaction between theoretical concepts and between concepts and empirical phenomena appear to be a key characteristic. Also, interaction between conceptualising in individual studies and conceptual development at the level of the research community appear as vital. Håkansson and Gadde (2018, p. 30) discuss the community level of theory development as "the network":

> The "network" is an outcome of a networking process where several actors, individually and jointly through research groups, interact and together create a basic structure that remains fluid and powerful.

While it may be tempting to define, or set a boundary around, "the network", we suggest that other ways of discussing the INA might be more fruitful in view of continued conceptual

and theoretical development. Focusing on how previous conceptualising inspire, and interact with, other conceptualising efforts may be more productive than focusing on who is part of the research community.

Considering the interaction among researchers focusing on a broad range of empirical phenomena, as well as with links to various neighbouring disciplines and research streams, the research community may benefit from the variety. Also, with reference to the conflicting views on whether increasing conceptual coherence is needed or not, different standpoints regarding how to conceptualise may contribute to variety. Inspiration can be found in Suddaby (2010, p. 354) who refers to Hirsch and Levin (1999) describing the struggle between "umbrella advocates" and "validity police":

> The term umbrella advocates refer to those researchers who argue that constructs should be viewed as large buckets or broad concepts loosely defined because this better captures the inherent complexity and messiness of the empirical world we study. The term validity police refers to those researchers who argue that constructs should be small buckets narrowly defined in order to bring more scientific rigor and validity to the study of organizations.

According to Suddaby (2010), the interaction between broad and narrow interpretations of concepts is not only healthy but also necessary for the advancement of knowledge.

Drawing on Kaplan's (1964) paradox of conceptualising, we have pointed at three related paradoxes that may inspire continued discussions on how conceptualising can be advanced in the INA – and, how conceptualising can advance the INA. Firstly, the general paradox of conceptualisation suggesting that the interplay between proper concepts and good theory is a "chicken or egg" issue. As no concept is an island, every concept is related to other concepts which ensures both stability and change in conceptual development (Cova *et al.*, 2015). Secondly, the more a concept is used or shared, the more it becomes related to other concepts and meanings. Hence, increasing conceptual clarity in terms of agreement on how a concept relates to other concepts does not necessarily follow from frequent use of a concept. Thirdly, the more agreement on how to define and use a concept, the more difficult it may become to advance the meaning of the concept. Consequently, the concept may not be considered useful in new contexts. The implication can be articulated as a parallel to the "control paradox" suggested by Håkansson and Ford (2002): While every researcher should try to contribute to coherence, they should all be aware of the consequences of succeeding.

The implications of the reflections and suggestions made in this paper relate to developments of both theory and of what empirical phenomena can be addressed by the theory. The two seem inseparable considering how conceptualising in the INA relies on interaction between the theoretical and empirical domains. Conceptual development may provide strong managerial implications when contributing new ways to capture and address various challenges. In the years, or decades, to come these will be focusing on different aspects of sustainability such as how to replace fossil fuels and how to turn linear business models into circular ones. These challenges translate into inter-organisational issues such as development of new resource combinations and new ways to organise activities in industrial networks, and thus how business actors engage in interaction with current and new business partners to explore and exploit adaptations of many different kinds. Concepts and conceptual models supporting these efforts will be of great value for all actors – both researchers and practitioners – involved in such challenge driven collaborations.

For INA researchers, the implications are to embrace the opportunities to (continue to) identify and put words on – to conceptualise – inter-organisational phenomena. Some argue that such phenomena are getting "richer" and more complex which may either be "true", and/or an outcome of joint advances in conceptualising them. How to frame, and reframe, the interactive aspects of these phenomena will hopefully remain a collective challenge. Researching industrial networks, and the challenges involved in industrial marketing and purchasing, involves continuously asking what and how to address – and thus how to conceptualise – certain phenomena, both as individual researchers and as a research community. Returning to Bacharach's (1989) definition of a theory as a statement of relations among concepts within a boundary set of assumptions and constraints, this relates to the challenges inherent in case research in industrial networks: the problem of network boundaries, the problem of complexity, the problem of time, and the problem of case comparison, as articulated by Halinen and Törnroos (2005). A variety of ways to tackle these boundaries in empirical studies are not only necessary to capture the complexity of unfolding empirical phenomena but may also help the research community not to get stuck in one, or a few, "fixed" ways of boundary setting. If that were to happen – then, probably, the lively conceptualising would eventually end up in a proper set of finally defined concepts. The end.

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